IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF ILLINOIS
EASTERN DIVISION

THE METRAFLEX COMPANY,	
Plaintiff,	**Case NO. 10 C 302**
v.	**Hon. Harry D. Leinenweber**
FLEX-HOSE COMPANY, INC.,	
Defendant.	

MEMORANDUM OPINION AND ORDER

Before the Court are the parties' briefs on construing Claims 1 through 18 and 20 of U.S. Patent No. 6,727,928 (hereinafter, the "'928 Patent" or "Patent").

I. BACKGROUND

Plaintiff The Metraflex Company ("Metraflex") accuses Defendant Flex-Hose Company, Inc. ("Flex-Hose") of infringing its '928 Patent for a Method of Displaying Product Selection on a Web Site. The effective filing date for the '928 Patent is January 8, 2000. The Patent was granted on April 27, 2004. The invention at issue is a method of displaying a product that has features with differently configured permutations. It purports to be useful when a computer program displays the product, such as through a web site. The invention provides for a user to select different permutations of various features associated with a product. A composite image of the product featuring the selected permutations

is then generated and displayed. In this invention, permutations are stored rather than images of all of the different possible combinations. This reduces the storage requirements for displaying the various combinations.

This litigation has reached claim construction, and the parties dispute the meanings of eight terms in Claims 1 through 18 and 20: (1) "using a computer program via a global computer network comprising the steps"; (2) "steps [1, 2, 3 . . .]"; (3) "selecting"; (4) "permutation"; (5) "proceeding to a step [4] / [3] if no further [fitting [or other features]] / [permutations] / are to be selected"; (6) "fitting"; (7) "generating a composite image of said selected product"; and (8) "variable visual features / physical components / features."

II. LEGAL STANDARD

Claim interpretation is a question of law. See Markman v. Westview Instruments, Inc., 52 F.3d 967, 976-78 (Fed. Cir. 1995) (en banc). Judicial construction is reserved for "when the meaning or scope of technical terms and words of art are unclear and in dispute." Eli Lilly & Co. v. Aradigm Corp., 376 F.3d 1352, 1360 (Fed. Cir. 2004). In interpreting an asserted claim, a court should look first to the intrinsic evidence of record, i.e., the patent itself, including the claims, the specification, and the prosecution history. See Vitronics Corp. v. Conceptronic, Inc., 90 F.3d 1576, 1582 (Fed. Cir. 1996).

A court should look to the words of the claims themselves to define the scope of the patented invention. See id. Although words in a claim are generally given their ordinary and customary meanings, a patentee may use terms in a manner other than their ordinary meaning, as long as the patent specification clearly states the special definition. See id. A court must construe the claim language according to the meaning of the words to a person skilled in the art as of the application date. See W.L. Gore & Assoc., Inc. v. Garlock, Inc., 721 F.2d 1540, 1556 (Fed. Cir. 1983). In this case, the parties agree that the person with the ordinary skill in the art is in the software programming field and specializes in user interfaces and digital imaging, and has a four-year undergraduate degree in computer programming and at least two years of experience in that field or a related industry.

Second, to determine if a patentee has used any claim terms in a manner inconsistent with their ordinary and customary meanings, the court must review the patent specification. See Vitronics, 90 F.3d at 1582. Claims must be analyzed in view of the specification. See Markman, 52 F.3d at 979. A patent specification acts as a dictionary when it either defines claim terms expressly or defines terms by implication. See Vitronics, 90 F.3d at 1582 ("Usually, [the specification] is dispositive; it is the single best guide to the meaning of a disputed term."). As a general rule, patent claims are not limited to the preferred

embodiment or the examples in the specification. See Dow Chem. Co. v. United States, 226 F.3d 1334, 1342 (Fed. Cir. 2000). As a third step, a court should also consider the prosecution history of the patent, if in evidence. See Markman, 52 F.3d at 980; Vitronics, 90 F.3d at 1582.

If claim language remains unclear after review of the intrinsic record, a court "may look to the extrinsic evidence to help resolve the lack of clarity." Interactive Gift Express, Inc. v. Compuserve Inc., 256 F.3d 1323, 1332 (Fed. Cir. 2001). Such evidence includes dictionaries and learned treatises. See Markman, 52 F.3d at 980. The court may consult, for example, general or technical dictionaries to assist in determining the commonly understood meaning of a term. See Texas Digital Sys., Inc., v. Telegenix, Inc., 308 F.3d 1193, 1202–04 (Fed. Cir. 2002). The Federal Circuit, however, has reaffirmed the primacy of the intrinsic evidence, making it clear that a court must not use extrinsic sources such as dictionaries to contradict claim terms unambiguous in light of the intrinsic evidence. See Phillips v. AWH Corp., 415 F.3d 1303, 1317–24 (Fed. Cir. 2005)(en banc).

III. ANALYSIS

A. "using a computer program via a global computer network comprising the steps" (Claims 1, 2, and 20)

The Court construes the phrase "using a computer program via a global computer network comprising the steps" to mean "performing

each step of the method in the computer program via a global computer network." First, each step of the claim elements (Steps 1 through 5 in each of Claims 1, 2, and 20) that follow the phrase "using a computer program via a global computer network comprising the steps" must be performed through a computer program via a computer network. Also, the steps must occur sequentially as listed. The first step requires the user to access a web site. The following steps of selecting fittings and permutations, either manually or automatically, also must occur while the user accesses the computer network. A user must complete this selection process using the network to effectuate the display of a composite image on a remote computer.

The preamble of the Patent must be read in context with the claim necessary to give meaning to the rest of the claim. Where the claim preamble recites limitations of the claim or provides a requisite to give "life, meaning, and vitality to the claim," then the court construes the preamble as if in the balance of the claim. Pitney Bowes, Inc. v. Hewlett-Packard Co., 182 F.3d 1298, 1305 (Fed. Cir. 1999) (stating that where the preamble recites a limitation, there is no meaningful distinction between the preamble and the rest of the claim and only together do they comprise the claim). Where the body of the claim fully and intrinsically sets forth the complete invention, however, the preamble is of no significance to the claim construction. See id.

Here, the preamble recites limitations of the claims and is necessary to give life, meaning, and vitality to the claim. The preamble recites a method for "displaying a commercial product having various possible fittings by using a computer program via a global computer network. . . ." This is not merely a statement describing the invention's intended field of use. '928 Patent col.4 l.13–31. Instead, that statement must be read as relating to the ensuing language in the claims. In Claims 1, 2, and 20, step 1 requires "accessing a web site from a computer remote from a host computer." In general, "[u]sers need a Web browser and an Internet connection to access a Web site." Microsoft Computer Dictionary 564 (5th ed. 2002). In steps 2 and 3, the user, after accessing a web site, selects a fitting and a potential permutation of that fitting through the host computer. Step 4 produces a composite image of the product with the selected permutations through the host computer. Finally, in step 5 the host computer displays the composite image on the remote computer. The remote computer is a part of the global computer network, and only through interactions between the remote and host computers can the steps proceed. The claim elements clarify what the preamble makes evident — that all of the steps must be performed via a global computer network, such as the Internet.

The prosecution history supports this construction. The applicant amended the preamble of Claims 1, 15, and 20 to recite

"using a computer program via a global computer network" to overcome the PTO Examiner's rejections of the claims in light of the Quintero patent (U.S. Patent No. 5,293,479 (filed Apr. 20, 1992)), a prior art reference in the prosecution history of the '928 Patent. The applicant explained that the Quintero patent is "distinct from and unrelated to displaying a commercial product having variable features via a global computer network," and that Quintero "does not teach or suggest displaying a commercial product via a global computer network." Joint Appendix of the Patent-in-suit and Prosecution History, Ex. 2 at 85-86, ECF No. 70 [hereinafter, the "Prosecution History"]. The applicant expressly chose to accept more limiting claim language to overcome the rejections by the PTO Examiner.

B. "steps [1, 2, 3 . . .]" (Claims 1 through 18 and 20)

The Court construes the phrase "steps" in Claims 1 through 18 and 20 to require "that the steps be performed in sequential order." A method claim is properly construed to require that the steps occur in sequential order when the claims or specification directly or implicitly require such ordering. See Aerotel Ltd. v. T-Mobile USA, Inc., No. 2010-1179, 2010 WL 5376233, at *2 (Fed. Cir. Dec. 20, 2010). Here, logic necessitates that the steps in the claims occur sequentially. Viewing the process in reverse order, a composite image cannot be displayed unless a computer first generates a composite image. Likewise, a computer cannot

generate a composite image unless the user first selects a feature and a potential permutation of that feature. Finally, a user cannot select a feature or potential permutation without first accessing a computer program, either using a remote computer to connect to a host computer, or accessing the program directly from a host computer. The process is the same when the computer program automatically makes the selections.

Moreover, the specification repeatedly implies that the steps occur in sequential order. Figure 1 of the Patent depicts a process-flow diagram illustrating blocks or steps in a sequential order. After a user accesses a host computer, the features or further permutations are selected, manually or automatically, before the host computer generates and displays a composite image. A user cannot see a display of a composite image until after the user selects a particular feature and permutation. Further, the context of the specification suggests that the claim language and specification refer to the invention as a whole and are not restricted to a particular embodiment. The most logical reading of the claims is to order the related steps sequentially. While the claim language does not make this explicit, the natural sequence of steps required to generate and display an image compels this interpretation.

C. "selecting" (Claims 1, 2, 16, and 20)

The Court construes the term "selecting" to mean "to choose or make a choice, including moving a cursor into a box or area of the computer display screen containing depictions of fittings/features, which causes control to pass to an additional step." The claims themselves disclose the plain meaning of "selecting." Dependent Claims 3 through 7 provide examples of selecting. A user can select a product via an appropriate input through any of the following methods: typing a name of a product; typing a model name; selecting a product from a drop down menu; selecting a product from a displayed image; or automatically by a computer program. '928 Patent col.4 l.52-65.

The specification provides further explanation by giving similar examples of "selecting," including allowing the user to "type the name of a product in a designated input box, type the model number of a product, access a drop down menu of possible selections, or even view generic images of possible products." Id. at col.2 l.9-15. Furthermore, the Microsoft Computer Dictionary defines selection in general computer use as "to specify a block of data or text on screen by highlighting it or otherwise marking it with the intent of performing some operation on it." Id. at 471. The examples from the claims and the specification comport with this dictionary definition. A user can specify a block of data when typing in specific names or model numbers of particular

products or by highlighting products in a drop-down menu, with the intent of performing some other operation, such as selecting a further feature or permutation. This leads to the display of a composite image. If the computer does not prompt a user to select an additional feature or permutation, or the computer does not display a composite image, then the user has not accomplished a "selection."

D. "permutation" (Claims 1, 2, 16, and 20)

The Court construes the word "permutation" to mean "a visually perceptible structural variation or visually perceptible variation affecting the operating characteristics, specifications, or functionality of the product." Claims 1 and 20 require the selection of a fitting or permutation of a fitting. In Claim 2, steps 1 and 2 require the selection of variable features, including a middle portion, end portions, and various specifications related to the variable features and permutations of variable features other than color. Claim 16 requires the selection of a variable physical component.

The specification also indicates that the variable features and permutations are structural features. It states:

> the display of metal hose products in which there are three different features of the product comprising a left end, a right end and the middle, with each of the features having various permutations. For example, the middle, which comprises the metal hose, could include a double braided hose, a single braided hose or an un-braided hose. The left end and right

> end are fittings for the hose by which the hose is to be attached to other components and could be a wide variety of selections.

'928 Patent col.3 l.25-30. In the prosecution history, the patentee explained that the Graf Patent, U.S. Patent No. 6,349,300 (filed Apr. 16, 1999), a prior art reference, "does not teach to generate a composite image of a product from stored images of individual permutations as required in the claims." Prosecution History at 85. Furthermore, the patentee argued that in Graf, "[t]he operating characteristics or specifications of the products do not change based upon the color selected, nor does the functionality of the product change," as they do in the '928 Patent. Id. Here, the patentee intended to limit the invention to the selection of features that affect the operating characteristics, specifications, or functionality of the product. Thus, the permutations of these features must be of a structural nature.

When the patentee responded to the PTO examiner's 2003 rejection by amending the claims, the structural nature of the permutations became clearer. The patentee stated that, "Graf is limited to only selecting a permutation of color for a product and is not concerned with selecting a [permutation of a physical component] of the product." Id. at 86. The '928 Patent does this. The patentee goes on to say that "[n]or does Graf teach to generate a composite image from stored images of individual permutations of fittings." Id. As explained above, the claims disclose

permutations of physical components, so a permutation of a fitting requires that the fitting be a physical component of a structural nature.

E. "proceeding to a step [4] / [3] if no further [fittings [or other features]] / [permutations] / are to be selected" (Claims 1, 16, and 20)

The phrase "proceeding to a step [4] / [3] if no further [fittings [or other features]] / [permutations] / are to be selected" is construed to mean "proceeding to a step [4] / [3] only if no further [fittings [or other features]] / [permutations] / are to be selected." The word "if" is a conjunction defined as "on condition that." Webster's New World College Dictionary 709 (4th ed. 2008). Here, on condition that the user selects no further fittings or other features or permutations, the method proceeds to the next step. If the user selects further fittings or other features or permutations, then the method does not proceed to the next step and reverts to an earlier step.

The flow diagram in Figure 1 of the '928 Patent illustrates this construction. Once the "go to feature N+1?" step is reached, the user has only two options: (1) either make an additional selection and go back to an earlier step, or (2) make no additional selection and continue on to the next step. The only way to proceed to the following step is to make no additional selection, which gives the effect of an "only if" situation. The claim language discloses that the process must proceed in sequential

steps. Also, the patentee could easily have shown alternative ways of possibly proceeding to the next step, but chose otherwise.

F. "fitting" (Claims 1 and 20)

Claims 1 and 20 refer to displaying a product having a "fitting," which the Court construes to mean "a visually variable structural feature of a product or visually perceptible variation affecting the operating characteristics, specifications, or functionality of the product." The applicant defines fitting in the specification as a type of feature. '928 Patent col.3 l.43–50. Contextually, the specification describes a particular use of the method as "the display of metal hose products in which there are three different features of the product comprising a left end, a right end and the middle with each of the features having various permutations." Id. at col.3 l.19–25. The specification goes on to explain that fittings are examples of those features: "The left end and right end are fittings for the hose by which the hose is to be attached to other components and could be a wide variety of selections, as many as thirty to forty more." Id. at col.3 l.25–30. The claims disclose permutations of physical components, so a permutation of a fitting requires that the fitting be a physical component of a structural nature.

G. "generating a composite image of said selected product" (Claims 1, 2, 16, and 20)

The Court construes the term "generating a composite image of said selected product" to mean "a computer processor carrying out

the instructions of a computer program, taking into account the user's selection input steps, to create a composite image." The plain language of the claims recites a method for displaying a product having variable features by using a computer program. Also, as discussed, all of the steps are to be completed using a computer program either via a global computer network or, as in Claim 16, working directly on a host computer. Thus, a computer processor must run the software that generates a composite image.

The specification provides more description of how a computer processor generates a composite image. In one example, the specification states:

> [a] particular advantageous use of the method is for advertising or product display on a web site on the global computer network in which the user's computer is remote from the computer (host computer) containing the images in memory of all of the various permutations of the product and the program for carrying out the steps of the method. Inputs by the user are transmitted over the global computer network to the host computer and the display is transmitted back to the user's computer for display to the user.

Id. at col.3 l.10-20. Once the selections are either manually or automatically inputted, the computer processor generates a composite image.

Finally, the claims are not subject to a step-plus function limitation. Where a method claim does not contain the term "steps for," a limitation of that claim cannot be construed as a step-plus-function limitation without a showing that the limitation

contains no act. See Masco Corp. v. United States, 303 F.3d 1316, 1327 (Fed. Cir. 2002). In this case, Claims 1, 2, 16, and 20 do not contain the term "steps for." Additionally, the term "generating," in the sense of causing a composite image to be displayed from stored images of individual permutations, contains an act because it describes how the function of generating a composite image occurs. Thus, no step-plus function limitation exists.

H. "variable visual features / physical components / features" (Claims 2 and 16)

The Court construes the term "variable visual features / physical components / features" to mean "visual variable structural features including a middle portion, left end, and right end, or visually perceptible variation affecting the operating characteristics, specifications, or functionality of the product, including a middle portion, left end, and right end." As explained above, the features are considered structural components.

IV. CONCLUSION

For the reasons stated herein, the Court construes the eight disputed patent claim terms to mean the following:

1. The term "using a computer program via a global computer network comprising the steps" is construed to mean "performing each step of the method via a global computer network."

2. The term "steps [1, 2, 3 . . .]" is construed to require that the steps be performed in sequential order.

3. The term "selecting" is construed to mean "to choose or make a choice, including moving a cursor into a box or area of the computer display screen containing depictions of fittings/features, which causes control to pass to an additional step."

4. The term "permutation" is construed to mean "a visually perceptible structural variation or visually perceptible variation affecting the operating characteristics, specifications, or functionality of the product."

5. The term "proceeding to a step [4] / [3] if no further [fitting [or other features]] / [permutations] / are to be selected" is construed to mean "proceeding to a step [4] / [3] only if no further [fittings [or other features]] / [permutations] / are to be selected."

6. The term "fitting" is construed to mean "a visually variable structural feature of a product or visually perceptible variation affecting the operating characteristics, specifications, or functionality of the product."

7. The term "generating a composite image of said selected product" is construed to mean "a computer processor carrying out the instructions of a computer program, taking into account the user's selection input steps, to create a composite image."

8. The term "variable visual features / physical components / features" is construed to mean "visual variable structural features including a middle portion, left end, and right end, or

visually perceptible variation affecting the operating characteristics, specifications, or functionality of the product, including a middle portion, left end, and right end."

IT IS SO ORDERED.

Harry D. Leinenweber, Judge
United States District Court

DATE: 09/08/2011